

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for printing, said system comprising:  
an optical sensor that is moveable relative to a print medium;  
a printhead coupled to said optical sensor; and  
a print medium feed mechanism comprising a roller, wherein ~~a mark located on~~  
said roller has located thereon a plurality of marks, said marks occurring along the  
circumference of said roller and also along the length of said roller and visible to said  
optical sensor within the range of movement of said optical sensor as said print medium  
is fed through said feed mechanism past said roller, said marks separated by known  
distances measured in a first direction along said circumference and known distances  
measured in a second direction along said length, wherein said known distances  
measured in said first direction and in said second direction are used to determine a  
position of said optical sensor relative to said print medium. ~~provides a known location~~  
~~that can be used to establish a position of said optical sensor, wherein a first position of~~  
~~said optical sensor established according to said mark is usable for determining an error~~  
~~associated with a second position determined using information from said print medium~~  
~~sensed as said optical sensor moves relative to said print medium.~~
2. (Canceled).
3. (Currently Amended) The system of Claim 1 wherein said marks along  
said length of said roller are ~~mark on said roller~~ is visible to said optical sensor during  
transport of said print medium, wherein said print medium is opaque.
- 4-5. (Canceled).
6. (Currently Amended) The system of Claim 1 [[5]] further comprising a  
second optical sensor positioned to sense information from said print medium.

7. (Currently Amended) The system of Claim 1 wherein said feed mechanism comprises a second roller ~~[[,]] wherein said mark is located on one of said rollers.~~

8-9. (Canceled).

10. (Currently Amended) The system of Claim 1 wherein said ~~second~~ position is used for determining a rotational mounting error associated with said optical sensor.

11. (Currently Amended) The system of Claim 1 ~~further comprising: a printhead coupled to said optical sensor, said printhead adapted to eject ink onto said print medium;~~ wherein said position of said optical sensor is used to establish a position of said printhead.

12. (Previously Presented) A method of correcting a position of a printhead in a system for printing, said method comprising:

establishing an initial position of said printhead;

estimating a second position of said printhead based on information sensed as said printhead moves relative to a print medium, wherein said system comprises a feed mechanism for transporting said print medium, said feed mechanism comprising a roller; and

using a first marker in a known location on said roller to determine an error associated with said second position.

13. (Original) The method of Claim 12 further comprising:

estimating a third position of said printhead based on information sensed as said printhead moves relative to said print medium; and

using said error associated with said second position to correct said third position.

14. (Original) The method of Claim 12 wherein said initial position is established using said first marker.

15. (Previously Presented) The method of Claim 12 wherein said initial position is determined using an edge of said print medium.

16. (Original) The method of Claim 12 wherein said initial position is established using a second marker.

17. (Original) The method of Claim 12 wherein said printhead moves in combination with an optical sensor, said optical sensor adapted to detect said first marker.

18. (Canceled).

19. (Previously Presented) The method of Claim 12 wherein said feed mechanism further comprises a second roller, wherein said first marker is located on one of said rollers.

20. (Original) A method of detecting rotational mounting error between an optical sensor and a printhead in a system for printing, said method comprising:  
receiving a signal that identifies a direction of relative motion between said optical sensor and printhead moving in combination and a print medium;  
estimating a position of said optical sensor and printhead using information sensed from said print medium; and

identifying any difference between a position of said optical sensor and printhead based on said direction of relative motion and said position of said optical sensor and printhead estimated using said information sensed from said print medium, said any difference indicating presence of a rotational mounting error.

21. (Original) The method of Claim 20 wherein said print medium moves in a first direction along a first axis and said optical sensor and printhead move in a second direction along a second axis orthogonal to said first axis, wherein said signal is for identifying whether said direction of relative motion is in said first direction or in said second direction.

22. (Original) The method of Claim 20 further comprising:  
correcting for said rotational mounting error if said any difference is identified.

23. (Original) The method of Claim 20 further comprising:  
using a feature having a known location to establish an initial position of said optical sensor and printhead.

24. (Original) The method of Claim 20 further comprising:  
using a feature having a known location to determine an error associated with said position of said optical sensor and printhead estimated using said information sensed from said print medium.